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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/864,300	05/25/2001	Motoo Nishihara	161349/00	2773
30743	7590	03/14/2005	EXAMINER	
WHITHAM, CURTIS & CHRISTOFFERSON, P.C. 11491 SUNSET HILLS ROAD SUITE 340 RESTON, VA 20190			TANG, KENNETH	
			ART UNIT	PAPER NUMBER
			2127	

DATE MAILED: 03/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/864,300	Applicant(s) NISHIHARA, MOTOO	
	Examiner Kenneth Tang	Art Unit 2127	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 October 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4,6-9 and 11-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,6-9 and 11-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to the Amendment filed on 10/19/04. Applicant's arguments have been fully considered but are now moot in view of the new grounds of rejections.
2. Claims 1-4, 6-9, 11-14 are presented for examination.

Claim Objections

3. Claims 1-2, 6-7, and 11-12 are objected to because of the following informalities:
 - a. In claim 1 (line 13), “;” should be changed to “,”. Claims 6 and 11 are objected for the same reasons.
 - b. In claim 2 (last line), “a” should be changed to “an”. Claims 7 and 12 are objected for the same reasons.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-4, 6-9, 11-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention:

- c. In claim 1, “own packet” (line 15) is indefinite because it is not made explicitly clear in the claim language what the own packet refers to. It is unclear who is the owner

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of that packet. Is this packet from the calculating part, the storage part, the management memory or neither?

d. As to claims 6, 11, they are rejected for the same reasons as stated in the rejection of claim 1.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-3, 6-8, and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liron (US 5,740,164).

6. As to claim 1, Liron teaches a pipeline processing type shaping apparatus that calculates a transmission scheduling time for each input packet to said apparatus by performing pipeline processing by a pipeline portion (pipeline processing by an input packet processor) (*col. 13, lines 49-62*), said apparatus comprising:

a management memory (*cache memory 45*) that stores a latest scheduling time allocated to a packet which has been processed by said pipeline processing portion (*col. 8, lines 19-40*);

a storage part (*cache memory 45*) that stores and manages a number of packets and a total sum length of packets currently being processed in said pipeline processing portion for each packet flow as flow information (*col. 8, lines 19-40*) and

a calculating (estimating) part that calculates the transmission scheduling time of an input packet to said pipeline processing portion; referring to the latest scheduling time being managed by said management memory and said total sum length of packets including own packet and other packets currently being processed in said pipeline processing portion (calculating the delay/wait time estimate in a packet pipeline process with updating) (*col. 17, lines 25-54, col. 13, lines 49-62, col. 8, lines 25-28*).

Liron teaches a cache memory to store the latest scheduling time and the total sum length of packets but Liron fails to explicitly teach that different memories are used. However, it is well known in the art that a separate memory can be used to save a separate piece of data because this increases memory capacity.

7. As to claim 2, Liron teaches the pipeline processing type shaping apparatus wherein the calculating part includes a reading block that reads from the stored part the flow information of packet a flow to which coincides with the packet flow of the packet input to the pipeline processing portion; and calculating block that calculates the transmission scheduling time of the packet input to said pipeline processing portion referring to the latest scheduling time being managed by the management memory and the flow information read by said reading block with adding an own packet length of the packet (*col. 17, lines 25-54, col. 13, lines 49-62*).

8. As to claim 3, Liron teaches the pipeline processing type shaping apparatus further including a storage information update part that updates the flow information of the storage part for each of the flows in response to the input of the packet to the pipeline processing portion (adaptive routing performs updating to have accurate “knowledge”) (*col. 8, lines 25-28*).

9. As to claims 6-8, they are rejected for the same reasons as stated in the rejection of claims 1-3.

10. As to claim 11, it is rejected for the same reasons as stated in the rejection of claim 1. In addition, Liron teaches a recording medium.

11. As to claims 12-13, it is rejected for the same reasons as stated in the rejection of claims 2-3.

Allowable Subject Matter

12. Claims 4, 9, and 14 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Response to Arguments

13. Applicant's arguments with respect to claims 1-4, 6-9, 11-14 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Zein Al Abedeen et al. (US 5,327,432) teaches a packet pipeline process which calculates transmission based on the total length of packets and the current scheduling time.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth Tang whose telephone number is (571) 272-3772. The examiner can normally be reached on 8:30AM - 6:00PM, Every other Friday off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kt
3/4/05


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